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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 35

Application Number: 08/661,834

Filing Date: 06/11/1996

Appellant(s): Joseph P. Kronzer et al.

Karl G. Hanson
For Appellant

EXAMINER'S ANSWER

This is in response to appellant's brief on appeal filed 11/15/2000.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

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(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 25-37 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

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(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

1. Claims 25-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, each of claims 25 and 32 recites the broad recitation "...at least 40 weight percent thermally bonding fibers...", "...at least 10 weight percent of the fibers in the nonwoven layer being bicomponent fibers...", "...a surface fuzz value of not less than 7.5...", and each of the claims also recites "...with the proviso that if the bicomponent fiber

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content is 85 weight percent or greater, then the surface fuzz value exceeds 8.0.” which is the narrower statement of the range/limitation.

2. Claims 25-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 25, lines 5 and 6 recite “...and optionally (ii) staple fibers,...”. It is not clear whether applicant intends to claim the combination of a fibrous filtration face mask and staple fibers. The use of the language “...and optionally...” renders the scope of the claim unclear with respect to whether applicant intends to claim the combination or not. The conjunction “...and...” is seen as a means for reciting the combination whereas the word “...optionally...” is seen as a means for reciting elements alternatively (i.e. consistent with the use of the word “...or...”).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 25-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyrud et al. (‘619).

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As to claim 25, Dyrud et al. ('619) disclose a fibrous face mask (figs. 1-3) for filtering contaminants and/or particulate matter, which comprises: a means (12) for securing the mask to the face of a wearer; and a non-woven fibrous layer (disclosed as a shaping layer) attached (col. 3, lines 13-15) to the securing means and containing at least about 40% weight thermally bonding fibers based on the weight of the in the non-woven fibrous layer, at least about 10% weight of the fibers in the non-woven layer being bicomponent fibers, and optionally staple fibers, the non-woven fibrous layer being molded in a cup-shaped configuration. As for the claimed weight ratios of at least 40% weight thermally bonding fibers and at least 10% weight bicomponent fibers in the non-wovwn layer, applicant is referred to Dyrud et al. (col. 4, lines 29-37) which discloses weight ratios ranging from 0% staple fibers:100% bicomponent fibers to 75% staple fibers:25% bicomponent fibers, a range which includes the claimed values of 40% thermally bonding fibers and 10% bicomponent fibers.

As for the claimed "surface fuzz value" of not less than 7.5, since Dyrud et al. disclose thermally bonding fibers having bicomponent fibers as well as staple fibers (col. 4, lines 29-37) in a plurality weight percent ratios which includes 40 wt.% thermally bonding fibers and at least about 10 wt.% bicomponent fibers, it is submitted that the process of molding which includes the use of heat as disclosed by Dyrud et al. would have resulted in a shaping layer having a surface fuzz value including one which is not less than 7.5.

As to claim 26, Dyrud et al. as discussed above disclose a wide range of weight percent of fibers making up the non-woven layers which include the claimed weight per cent of fibers.

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Moreover, Dyrud et al. disclose a plurality of non-woven layers having filtration layer of blown microfibers therebetween (fig.2 and col.6, line 63-col.7, line 20).

As to claims 27-31, and new claims 33-37, the particular values of weight per cent of the bicomponent fibers in Dyrud et al. can be arrived at through mere routine experimentation and observation with no criticality seen in the particular values being claimed. The surface fuzz values resulting from the heated molding process disclosed by Dyrud et al. and a given proportion of specific fibers would result in a shaping layer having a plurality of surface fuzz values in dependence upon the particular selection of fibers.

Claim 32 with the exception of the optional inclusion of staple fibers is substantially equivalent in scope to claim 25 and is included in Dyrud et al. for the reasons set forth above with respect to claim 25.

Response to Arguments

5. Applicant's arguments filed 03/06/00 have been fully considered but they are not persuasive.

Applicant's arguments regarding the rejection of claims 25-37 due to broad range/limitation with a narrow range/limitation in the same claim are disagreed with because as written the scope of the claims is indefinite with respect to the particular weight percent of bicomponent fibers and indefinite with respect to the particular surface fuzz value that applicant intends to claim. That is, it is not clear whether applicant intends the claims to be drawn to 'at least 40 weight percent bicomponent fibers' or '85 weight percent or greater' nor is it clear whether applicant intends the

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claims to be drawn to a surface fuzz value of 'not less than 7.5' or a surface fuzz value which 'exceeds 8.0':

Applicant's arguments regarding the rejection of claims 25-31 due to the use of the phrase "...and optionally..." are disagreed with because while the MPEP 2173.05(h) does indicate that the use of the term "...and optionally..." may be used where there is no ambiguity as to which alternatives are covered by the claim. However, (MPEP 2173.05(h)) goes on to specify that in a case in which the list of alternatives can vary, ambiguity may arise. In the instant application, claim 25, the list of alternatives including thermally bonding fibers, bicomponent fibers and staple fibers may vary in such a manner (i.e. by weight percent) that the constituency of the non-woven fibrous layer intended by applicant cannot be determined from the claim language.

Applicant's arguments regarding the prior art to Dyrud et al. are disagreed with because there is nothing in the disclosure of Dyrud et al. that suggests anything less than an enabling disclosure and because while Dyrud et al. may disclose a molding method which is accomplished by a so called 'hot molding method', the claims of the instant application do not define a molding method including a so called 'cold molding method' in any manner which is unobvious over that of Dyrud et al..

(11) Response to Argument

As to appellants' arguments regarding a range within a range in claims 25-37, it is submitted that the recitation "...with the proviso that if the bicomponent fiber content is 85 weight percent or greater, then the surface fuzz value exceeds 8.0." in claims 25 and 32

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constitutes the narrower statement of the range limitation. That is, the bicomponent fiber content is established in a broad range limitation "...at least about 10 wt.% of the fibers in the nonwoven fibrous layer being bicomponent fibers..." and the surface fuzz value is established in a broad range limitation "...having a surface fuzz value of not less than 7.5...". The phrase "...with the proviso that if the bicomponent fiber content is 85 weight percent or greater, then the surface fuzz value exceeds 8.0." further limits the bicomponent fiber content and further limits the surface fuzz value. Consequently, the metes and bounds of claims are not clearly set forth resulting in confusion over the intended scope of the claims.

As to appellants' arguments regarding the language "...and optionally...", it is submitted that the scope of the claims is indefinite as to exactly what appellants intend to include as a component of the fibrous filtration mask. The claims require thermally bonding fibers including bicomponent fibers in at least 40 wt.% and at least 10 wt.% amounts respectively; however, it is not clear from the language of the claims (i.e. "...and optionally staple fibers...") whether (and in what amount) the staple fibers are intended to be substituted for either the thermally bonding fibers or the bicomponent fibers or whether (and in what amount) appellants intend that the staple fibers are to be added to the thermally bonding fibers and bicomponent fibers.

Appellants assertions that Dyrud discloses the making of a fibrous filtration mask without bicomponent fibers and the shaping layers are molded in a hot molding operation may be accurate; however, the claims require bicomponent fibers in amounts which are disclosed by Dyrud as

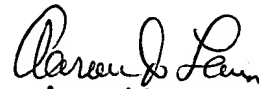
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discussed above and the claims do not define any method of molding. Consequently, neither of these assertions alone nor taken together is/are distinguishing.

Appellants conjecture regarding the maximum fuzz value attainable using the method of molding as disclosed by Dyrud may be accurate; however, since the claims do not define a method of cold molding these conclusions are of no relevance in distinguishing over the prior art to Dyrud. Further, none of claims 25-37 employ any language including means plus function language which would require one of ordinary skill to read the claims in light of a disclosed method of molding.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


Aaron J. Lewis
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December 4, 2000

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